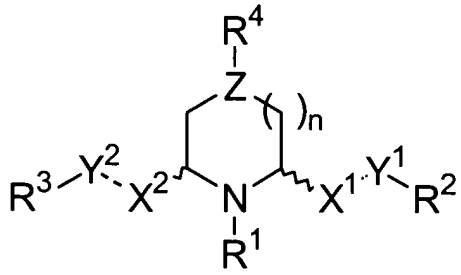
What is claimed is:

1. A 2,6-substituted piperidino compound and pharmaceutically effective salts thereof, including resolved diasteriomers, enantiomers thereof, comprising the following formula:



wherein

n is an integer from 0 to 3;

X^1 represents CH_2;

Y^1 represents CHOH or C=O;

X^2---Y^2 represents a *cis*-carbon-carbon double bond or a *trans*-carbon-carbon double bond;

Z represents CH;

R^1 and R^4 are the same or independently different from one another and represent hydrogen or a lower straight chain or branched alkyl;

R^2 and R^3 are the same or are independently different from one another and represent a saturated or unsaturated hydrocarbon ring, or an ortho, meta or para-substituted benzene.

2. The compound of claim 1, wherein R^2 and R^3 are benzene rings.

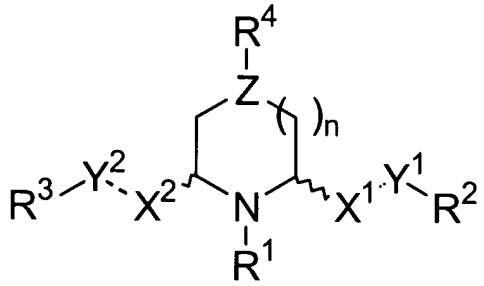
3. The compound of claim 2, wherein R^1 is hydrogen, methyl, ethyl or propyl.

4. The compound of claim 1, wherein R^2 and R^3 are substituted benzenes containing at least one substituent selected from the group consisting of methyl, ethyl, propyl, isopropyl, butyl, sec-butyl, isobutyl, carboxaldehyde, acetoxy, propionyloxy, isopropionyloxy, acetyl,

propionyl, formyl, benzoyl, hydroxyl, methoxy, ethoxy, propoxy, isopropoxy, fluoro, chloro, bromo, iodo, and trifluoromethyl.

5. The compound of claim 1, wherein said compound is selected from the group consisting of N-methyl-2R-phenacyl-6S-*trans*-styrylpiperdine, c*is*-10R,2S,6R-N-methyl-6-[1-(2-hydroxy-2-phenyl)-ethyl]-2-*trans*-styrylpiperidine, c*is*-10S,2S,6R-N-methyl-6-[1-(2-hydroxy-2-phenyl)-ethyl]-2-*trans*-styrylpiperidine, N-methyl-2R-phenacyl-6S-*trans*-styrylpiperidine, N-Methyl-2R-(2R-hydroxy-2-phenethyl)-6S-*trans*-styrylpiperidine, N-methyl-2R-(2S-hydroxy-2-phenethyl)-6S-*trans*-styrylpiperidine, and N-methyl-2R-(2-phenethyl)-6S-*trans*-styrylpiperidine.

6. A 2,6-substituted piperidino compound and pharmaceutically effective salts thereof, including resolved diasteriomers, enantiomers thereof, comprising the following formula:



wherein:

n = 0, 1, 2, or 3;

X^1---Y^1 represents a *cis*-carbon-carbon double bond or a *trans*-carbon-carbon double bond;

X^2 represents CH_2;

Y^2 represents CHOH or C=O;

Z represents CH;

R^1 and R^4 are the same or independently different from one another and represent hydrogen or a lower straight chain or branched alkyl;

R^2 and R^3 are the same or are independently different from one another and represent a saturated or unsaturated hydrocarbon ring, or an ortho, meta or para-substituted benzene.

7. The compound of claim 6, wherein R^2 and R^3 are benzene rings.

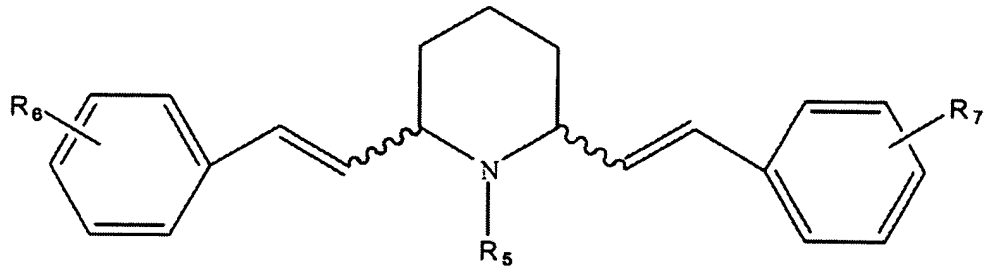
8. The compound of claim 6, wherein R^1 is hydrogen, methyl, ethyl or propyl.

9. The compound of claim 6, wherein R^1 is hydrogen, methyl, ethyl or propyl.

10. The compound of claim 6, wherein R^2 and R^3 are substituted benzenes containing at least one substituent selected from the group consisting of methyl, ethyl, propyl, isopropyl, butyl, sec-butyl, isobutyl, carboxaldehyde, acetoxy, propionyloxy, isopropionyloxy, acetyl, propionyl, formyl, benzoyl, hydroxyl, methoxy, ethoxy, propoxy, isopropoxy, fluoro, chloro, bromo, iodo, and trifluoromethyl.

11. The compound of claim 6, wherein the compouond is selected from the group consisting of N-methyl-2R-*trans*-styryl-6S-(2-phenethyl)piperidine and N-methyl-2S-*trans*-styryl-6S-(2-phenethyl)piperidine.

12. A 2.6-substituted piperdino compound and pharmaceutically effective salts thereof following formula:



wherein

R_5 represents hydrogen, methyl, deuteromethyl (CD_3), tritiomethyl (CT_3), ethyl, or C_3-C_7 straight chain or branched alkyl, C_3-C_6 cycloalkyl, vinyl, allyl, C_4-C_7 alkenyl, benzyl, and phenylethyl; and

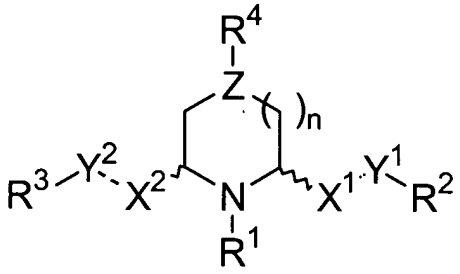
R_6 and R_7 represent hydrogen, methyl, ethyl, C_3-C_7 straight chain or branched alkyl, C_3-C_6 cycloalkyl, vinyl, allyl, C_4-C_7 alkenyl, benzyl, phenylethyl, N-methylamino, N,N-dimethylamino, carboxylate, methylcarboxylate, ethylcarboxylate, propylcarboxylate,

isopropylcarboxylate, carboxaldehyde, acetoxy, propionyloxy, isopropionyloxy, cyano, aminomethyl, N-methylaminomethyl, N,N-dimethylaminomethyl, carboxamide, N-methylcarboxamide, N,N-dimethylcarboxamide, acetyl, propionyl, formyl, benzoyl, sulfate, methylsulfate, hydroxyl, methoxy, ethoxy, propoxy, isopropoxy, thiol, methylthio, ethylthio, propiothiol, fluoro, chloro, bromo, iodo, trifluoromethyl, propargyl, nitro, carbamoyl, ureido, azido, isocyanate, thioisocyanate, hydroxylamino, and nitroso.

13. The compound of claim 12, wherein R^1 is hydrogen, methyl, ethyl or propyl.

14. The compound of claim 12, wherein the compouond is selected from the group consisting of N-methyl-2,6-*cis*-di-*trans*-styrylpiperidine, N-methyl-2S,6S-*trans*-di-*trans*-styrylpiperidine, and N-methyl-2R,6R- *trans*-di-*trans*-styryl piperidine.

15. A 2,6-substituted piperidino or a 2,6-substituted piperazino compound and pharmaceutically effective salts thereof, including resolved diasteriomers, enantiomers thereof, comprising the following formula:



wherein

n is an integer from 0 to 3;

X^1---Y^1 and X^2---Y^2 are the same or independently different and represent a CH_2-CH_2 or CH_2-CHOH;

Z–R^4 represents N–R^4, CH–R^4 or C=O, where R^4 is hydrogen or a lower straight chain or branched alkyl;

R^1 represents hydrogen or a lower straight chain or branched alkyl; or when when Z is CH–R^4, R^1 and R^4 together form a ring including a -CH_2-, -O-CH_2-O-, -CH_2CH_2-, -CH_2CH_2-CH_2-, -*cis*-CH=CH, -*cis*-CH_2-CH=CH- or -*cis*-CH_2=CH-CH_2- moiety;

R^2 and R^3 are the same or are independently different from one another and represent a saturated or unsaturated hydrocarbon ring, or an ortho, meta or para-substituted benzene.

16. The compound of claim 15, wherein R^1 is hydrogen, methyl, ethyl or propyl.

17. The compound of claim 15, wherein R^2 and R^3 are benzene rings.

18. The compound of claim 15, wherein R^2 and R^3 are substituted benzenes containing at least one substituent selected from the group consisting of methyl, ethyl, propyl, isopropyl, butyl, sec-butyl, isobutyl, carboxaldehyde, acetoxy, propionyloxy, isopropionyloxy, acetyl, propionyl, formyl, benzoyl, phenyl, hydroxyl, methoxy, ethoxy, propoxy, isopropoxy, fluoro, chloro, bromo, iodo, and trifluoromethyl.

19. The compound of claim 15, wherein R^2 and R^3 are napthyl or diphenyl groups.

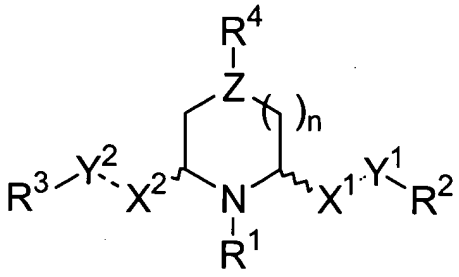
20. The compound of claim 15, wherein Z is N-R^4.

21. The compound of claim 15, wherein Z is CH-R^4.

22. The compound of claim 14, wherein the compound is selected from the group consisting of *cis*-10R,2S,6R- and *cis*-10S,2S,6R-N-methyl-6-[1-(2-hydroxy-2-phenyl)-ethyl]-2-*trans*-styrylpiperidine, *cis*-2S,6R-N-methyl-6-[1-(2-hydroxy-2-phenyl)ethyl]-2-phenylethylpiperidine, 2S,6R, 8S-2-[6-(β-*para*-toluenesulfonyloxyphenethyl)-1-methyl-2-piperidyl]-acetophenone, N-Methyl-2R-(2R-hydroxy-2-phenethyl)-6S-(2-phenethyl) piperidine, N-Methyl-2R-(2S-hydroxy-2-phenethyl)-6S-(2-phenethyl) piperidine, N-methyl-2,6- *cis*-di-(2-phenethyl)piperidine, 2,6-*cis*-diphenethylpiperidine, N-ethyl-2,6-*cis*-diphenethylpiperidine, N-(n-propyl)-2,6-*cis*-diphenethylpiperidine, 2,6-*cis*-di-(3,4-methylenedioxyphenethylpiperidine, N-methyl-2,6-*cis*-di-(3,4-methylenedioxyphenethyl-piperidine, N-methyl-2S,6S-*trans*-di-(2-phenethyl)piperidine, N-methyl-2R,6R-*trans*-di-(2-phenethyl)piperidine, 2,6-*cis*-di-(*o*-fluorophen-ethyl)piperidine, N-methyl-2,6-*cis*-di-(*o*-fluorophenethyl)-piperidine, 2,6-*cis*-di-(*m*-fluorophenethyl)piperidine, N-methyl-2,6-*cis*-di-(*m*-fluorophenethyl)-piperidine, 2,6-*cis*-di-(*p*-

fluorophenethyl)piperidine, N-methyl-2,6-*cis*-di-(*p*-fluorophenethyl)-piperidine, 2,6-*cis*-di-(*o*-methoxyphenethyl)piperidine, N-methyl-2,6-*cis*-di-(*o*-methoxyphen-ethyl)piperidine, 2,6-*cis*-di-(*m*-methoxyphenethyl)piperidine, N-methyl-2,6-*cis*-di-(*m*-methoxyphenethyl)piperidine, 2,6-*cis*-di-(*p*-methoxyphenethyl)piperidine, N-methyl-2,6-*cis*-di-(*p*-methoxyphenethyl)piperidine, 2,6-*cis*-di-(*p*-methylphenethyl)piperidine, N-methyl-2,6-*cis*-di-(*p*-methylphenethyl)piperidine, 2,6-*cis*-di-(*m*-trifluoromethylphenethyl)piperidine, N-methyl-2,6-*cis*-di-(*m*-trifluoromethylphenethyl)piperidine, 2,6-*cis*-di-(*p*-phenylphenethyl)piperidine, N-methyl-2,6-*cis*-di-(*p*-phenylphenethyl)piperidine, 2,6-*cis*-di-(*p*-hydroxymethylphenethyl)-piperidine, 2,6-*cis*-di-(*p*-acetoxymethylphenethyl)piperidine, 2,6-*cis*-di-(2, 4-dichlorophenethyl)-piperidine, N-methyl-2,6-*cis*-di-(2,4-dichlorophenethyl)piperidine, 2,6-*cis*-di-(1-naphthalen-ethyl)piperidine, N-methyl-2,6-*cis*-di-(1-naphthalenethyl)piperidine, 2,6-*cis*-di-(2-naphthalen-ethyl)piperidine, N-methyl-2,6-*cis*-di-(2-naphthalenethyl)piperidine, 2,6-*cis*-diphenethyl-piperazine, and 1,4-dimethyl-2,6-*cis*-diphenethylpiperazine.

23. A 2,6-substituted piperidino or a 2,6-substituted piperazino compound and pharmaceutically effective salts thereof, including resolved diasteriomers, enantiomers thereof, comprising the following formula:



wherein

n is an integer from 0 to 3;

X^1---Y^1 represents a carbon-carbon triple bond;

X^2---Y^2 represents a CH_2-CH_2;

Z–R^4 represents C=O; and

R^2 and R^3 are the same or are independently different from one another and represent a saturated or unsaturated hydrocarbon ring, or an ortho, meta or para-substituted benzene.

24. The compound of claim 23, wherein R^2 and R^3 are benzene rings.

25. The compound of claim 23, wherein R^2 and R^3 are substituted benzenes containing at least one substituent selected from the group consisting of methyl, ethyl, propyl, isopropyl, butyl, sec-butyl, isobutyl, carboxaldehyde, acetoxy, propionyloxy, isopropionyloxy, acetyl, propionyl, formyl, benzoyl, hydroxyl, methoxy, ethoxy, propoxy, isopropoxy, fluoro, chloro, bromo, iodo, and trifluoromethyl.

26. The compound of claim 23, wherein the compound is 2,6- *cis*-2-phenethynyl-6-phenethylperidin-4-one or 2,6-*trans*-2-phenethynyl-6-phenethylperidin-4-one

27. A method of treating an individual for dependence on a drug of abuse, withdrawal from a drug of abuse, an eating disorder, or a CNS disease or pathology comprising administering to the individual a therapeutically effect amount of a compound of claim 1.

28. A method of treating an individual for dependence on a drug of abuse, withdrawal from a drug of abuse, an eating disorder, or a CNS disease or pathology comprising administering to the individual a therapeutically effect amount of a compound of claim 5.

29. A method of treating an individual for dependence on a drug of abuse, withdrawal from a drug of abuse, an eating disorder, or a CNS disease or pathology comprising administering to the individual a therapeutically effect amount of a compound of claim 6.

30. A method of treating an individual for dependence on a drug of abuse, withdrawal from a drug of abuse, an eating disorder, or a CNS disease or pathology comprising administering to the individual a therapeutically effect amount of a compound of claim 11.

31. A method of treating an individual for dependence on a drug of abuse, withdrawal from a drug of abuse, an eating disorder, or a CNS disease or pathology comprising administering to the individual a therapeutically effect amount of a compound of claim 15.

32. A method of treating an individual for dependence on a drug of abuse, withdrawal from a drug of abuse, an eating disorder, or a CNS disease or pathology comprising administering to the individual a therapeutically effect amount of a compound of claim 22.

33. A method of treating an individual for dependence on a drug of abuse, withdrawal from a drug of abuse, an eating disorder, or a CNS disease or pathology comprising administering to the individual a therapeutically effect amount of a compound of claim 23.

34. A method of treating an individual for dependence on a drug of abuse, withdrawal from a drug of abuse, an eating disorder, or a CNS disease or pathology comprising administering to the individual a therapeutically effect amount of a compound of claim 26.